

# Chapter 2

## Financial Statements and Analysis

Learning Goal 1 Review the contents of the stockholders' report and the procedures for consolidating international financial statements.

2.1.1) The Financial Accounting Standards Board (FASB) is the federal regulatory body that governs the sale and listing of securities.

Answer: FALSE

*Topic: Accounting Standards and Regulation*

2.1.2) GAAP is the accounting profession's rule-setting body.

Answer: FALSE

*Topic: Accounting Standards and Regulation*

2.1.3) Generally-accepted accounting principles are authorized by the Financial Accounting Standards Board (FASB).

Answer: TRUE

*Topic: Accounting Standards and Regulation*

2.1.4) Publicly-owned corporations are those which are financed by the proceeds from the treasury securities.

Answer: FALSE

*Topic: Accounting Standards and Regulation*

2.1.5) Publicly-owned corporations are required by the Securities and Exchange Commission (SEC) and individual state securities commissions to provide their stockholders with an annual stockholders' report.

Answer: TRUE

*Topic: Accounting Standards and Regulation*

2.1.6) The president's letter, as the first component of the stockholders' report, is the primary communication from management to the firm's employees.

Answer: FALSE

*Topic: Stockholders' Report*

2.1.7) Common stock dividends paid to stockholders are equal to the earnings available for common stockholders divided by the number of shares of common stock outstanding.

Answer: FALSE

*Topic: Dividends*

2.1.8) The income statement is a financial summary of the firm's operating results during a specified period while the balance sheet is a summary statement of the firm's financial position at a given point in time.

Answer: TRUE

*Topic: Income Statement*

2.1.9) The par value of common stock is an arbitrarily assigned per share value used primarily for accounting purposes.

Answer: TRUE

*Topic: Balance Sheet*

2.1.10) Paid-in capital in excess of par represents the firm's book value received from the original sale of common stock.

Answer: FALSE

Topic: Balance Sheet

2.1.11) Earnings per share represents amount earned during the period on each outstanding share of common stock.

Answer: TRUE

Topic: Earnings

2.1.12) Net fixed assets represent the difference between gross fixed assets and the total expense recorded for the depreciation over then entire lives of the firm's fixed assets.

Answer: TRUE

Topic: Balance Sheet

2.1.13) Earnings per share results from dividing earnings available for common stockholders by the number of shares of common stock authorized.

Answer: FALSE

Topic: Earnings

2.1.14) Retained earnings represent the cumulative total of all earnings retained and reinvested in the firm since its inception.

Answer: TRUE

Topic: Balance Sheet

2.1.15) The balance sheet is a statement which balances the firm's assets (what it owns) against its debt (what it has borrowed).

Answer: FALSE

Topic: Balance Sheet

2.1.16) The amount paid in by the original purchasers of common stock is shown by two entries in the firm's balance sheet—common stock and paid-in capital in excess of par on common stock.

Answer: TRUE

Topic: Balance Sheet

2.1.17) The original price per share received by the firm on a single issue of common stock is equal to the sum of the common stock and paid-in capital in excess of par accounts divided by the number of shares outstanding.

Answer: TRUE

Topic: Balance Sheet

2.1.18) The statement of cash flows reconciles the net income earned during a given year, and any cash dividends paid, with the change in retained earnings between the start and end of that year.

Answer: FALSE

Topic: Statement of Cash Flows

- 2.1.19) The cumulative translation adjustment is an equity reserve account on the parent company's books in which translation gains and losses are accumulated.  
Answer: TRUE  
Topic: *International Accounting*
- 2.1.20) The statement of cash flows provides insight into the firm's assets and liabilities and reconciles them with changes in its cash and marketable securities during the period of concern.  
Answer: FALSE  
Topic: *Statement of Cash Flows*
- 2.1.21) A U.S. parent company's foreign equity accounts are translated into dollars using the exchange rate that prevailed when the parent's equity investment was made (the historical rate).  
Answer: TRUE  
Topic: *International Accounting*
- 2.1.22) A U.S. parent company's foreign retained earnings are adjusted to reflect gains and losses resulting from currency movements as well as each year's operating profits or losses.  
Answer: FALSE  
Topic: *International Accounting*
- 2.1.23) The Financial Accounting Standards Board (FASB) Standard No. 52 mandates that U.S. -based companies translate their foreign-currency-denominated assets and liabilities into dollars using the current rate (translation) method.  
Answer: TRUE  
Topic: *International Accounting*
- 2.1.24) The McCain-Feingold Act of 2002 was passed to eliminate many of the disclosure and conflict of interest problems of corporations.  
Answer: FALSE  
Topic: *Accounting Standards and Regulation*
- 2.1.25) The Sarbanes-Oxley Act of 2002 was passed to eliminate many of the disclosure and conflict of interest problems of corporations.  
Answer: TRUE  
Topic: *Accounting Standards and Regulation*
- 2.1.26) The Sarbanes-Oxley Act of 2002 established the Public Company Accounting Oversight Board (PCAOB) which is a not-for-profit corporation that oversees auditors of public corporations.  
Answer: TRUE  
Topic: *Accounting Standards and Regulation*
- 2.1.27) The Sarbanes-Oxley Act of 2002 established the Private Company Accounting Oversight Board (PCAOB) which is a for-profit corporation that oversees CEOs of public corporations.  
Answer: FALSE  
Topic: *Accounting Standards and Regulation*

- 2.1.28) One of the most influential documents issued by a publicly-held corporation is the
- A) letter to stockholders.
  - B) annual report.
  - C) cash flow statement.
  - D) income statement.

Answer: B

Topic: Stockholders' Report

- 2.1.29) The rule-setting body, which authorizes generally accepted accounting principles is
- A) GAAP.
  - B) FASB.
  - C) SEC.
  - D) Federal Reserve System.

Answer: B

Topic: Accounting Standards and Regulation

- 2.1.30) Accounting practices and procedures used to prepare financial statements are called
- A) SEC.
  - B) FASB.
  - C) GAAP.
  - D) IRB.

Answer: C

Topic: Accounting Standards and Regulation

- 2.1.31) The federal regulatory body governing the sale and listing of securities is called the
- A) IRS.
  - B) FASB.
  - C) GAAP.
  - D) SEC.

Answer: D

Topic: Accounting Standards and Regulation

- 2.1.32) The stockholder's annual report must include
- A) a statement of cash flows.
  - B) an income statement.
  - C) a balance sheet.
  - D) a statement of retained earnings.
  - E) all of the above.

Answer: E

Topic: Stockholders' Report

- 2.1.33) The stockholder's report may include all of the following EXCEPT
- A) a cash budget.
  - B) an income statement.
  - C) a statement of cash flows.
  - D) a statement of retained earnings.

Answer: A

Topic: Stockholders' Report

- 2.1.34) Total assets less net fixed assets equals
- A) gross assets.
  - B) current assets.
  - C) depreciation.
  - D) liabilities and equity.

Answer: B

Topic: Balance Sheet

- 2.1.35) The \_\_\_\_\_ provides a financial summary of the firm's operating results during a specified period.
- A) income statement
  - B) balance sheet
  - C) statement of cash flows
  - D) statement of retained earnings

Answer: A

Topic: Income Statement

- 2.1.36) Gross profits are defined as
- A) operating profits minus depreciation.
  - B) operating profits minus cost of goods sold.
  - C) sales revenue minus operating expenses.
  - D) sales revenue minus cost of goods sold.

Answer: D

Topic: Income Statement

- 2.1.37) Operating profits are defined as
- A) gross profits minus operating expenses.
  - B) sales revenue minus cost of goods sold.
  - C) earnings before depreciation and taxes.
  - D) sales revenue minus depreciation expense.

Answer: A

Topic: Income Statement

- 2.1.38) Net profits after taxes are defined as
- A) gross profits minus operating expenses.
  - B) sales revenue minus cost of goods sold.
  - C) EBIT minus interest.
  - D) EBIT minus interest and taxes.

Answer: D

Topic: Income Statement

- 2.1.39) Operating profits are defined as
- A) sales revenue minus cost of goods sold.
  - B) earnings before interest and taxes.
  - C) earnings before depreciation and taxes.
  - D) earnings after tax.

Answer: B

Topic: Income Statement

- 2.1.40) Earnings available to common shareholders are defined as net profits
- A) after taxes.
  - B) after taxes minus preferred dividends.
  - C) after taxes minus common dividends.
  - D) before taxes.

Answer: B

Topic: Income Statement

- 2.1.41) All of the following are examples of current assets EXCEPT
- A) accounts receivable.
  - B) cash.
  - C) accruals.
  - D) inventory.

Answer: C

Topic: Balance Sheet

- 2.1.42) All of the following are examples of fixed assets EXCEPT
- A) automobiles.
  - B) buildings.
  - C) marketable securities.
  - D) equipment.

Answer: C

Topic: Balance Sheet

- 2.1.43) All of the following are examples of current liabilities EXCEPT
- A) accounts receivable.
  - B) accounts payable.
  - C) accruals.
  - D) notes payable.

Answer: A

Topic: Balance Sheet

- 2.1.44) The net value of fixed assets is also called its
- A) market value.
  - B) par value.
  - C) book value.
  - D) price.

Answer: C

Topic: Balance Sheet

- 2.1.45) The \_\_\_\_\_ represents a summary statement of the firm's financial position at a given point in time.
- A) income statement
  - B) balance sheet
  - C) statement of cash flows
  - D) statement of retained earnings

Answer: B

Topic: Balance Sheet

- 2.1.46) The \_\_\_\_\_ summarizes the firm's funds flow over a given period of time
- A) income statement
  - B) balance sheet
  - C) statement of cash flows
  - D) statement of retained earnings

Answer: C

Topic: *Statement of Cash Flows*

- 2.1.47) The statement of cash flows may also be called the
- A) sources and uses statement.
  - B) statement of retained earnings.
  - C) bank statement.
  - D) funds statement.

Answer: A

Topic: *Statement of Cash Flows*

- 2.1.48) FASB Standard No. 52 mandates that U.S. based companies must translate their foreign-currency-denominated assets and liabilities into dollars using the
- A) historical rate.
  - B) current rate.
  - C) average rate.
  - D) none of the above.

Answer: B

Topic: *International Accounting*

- 2.1.49) Retained earnings on the balance sheet represents
- A) net profits after taxes.
  - B) cash.
  - C) net profits after taxes minus preferred dividends.
  - D) the cumulative total of earnings reinvested in the firm.

Answer: D

Topic: *Balance Sheet*

- 2.1.50) The statement of retained earnings reports all of the following EXCEPT
- A) net profits after taxes.
  - B) interest.
  - C) common stock dividends.
  - D) preferred stock dividends.

Answer: B

Topic: *Statement of Retained Earnings*

- 2.1.51) When preparing a statement of cash flows, retained earnings adjustments are required so that which of the following are separated on the statement?
- A) Revenue and cost.
  - B) Assets and liabilities.
  - C) Depreciation and purchases.
  - D) Net profits and dividends.

Answer: D

Topic: *Statement of Cash Flows*

2.1.52) A firm had the following accounts and financial data for 2005.

Sales Revenue	\$3,060	Cost of goods sold	\$1,800
Accounts Receivable	500	Preferred stock dividends	18
Interest expense	126	Tax rate	40%
Total oper. expenses	600	Number of shares of common	1,000
Accounts payable	240	stocks outstanding	

The firm's earnings available to common shareholders for 2005 were \_\_\_\_\_.

- A) -\$224.25
- B) \$195.40
- C) \$302.40
- D) \$516.60

Answer: C

Topic: Income Statement

2.1.53) A firm had the following accounts and financial data for 2005:

Sales Revenue	\$3,060	Cost of goods sold	\$1,800
Accounts receivable	500	Preferred stock dividends	18
Interest expense	126	Tax rate	40%
Total operating expenses	600	Number of common shares	1,000
Accounts payable	240	outstanding	

The firm's earnings per share, rounded to the nearest cent, for 2005 was \_\_\_\_\_.

- A) \$0.5335
- B) \$0.5125
- C) \$0.3204
- D) \$0.3024

Answer: D

Topic: Income Statement

2.1.54) A firm had the following accounts and financial data for 2005.

Sales Revenue	\$3,060	Cost of goods sold	\$1,800
Accounts receivable	500	Preferred stock dividends	18
Interest expense	126	Tax rate	40%
Total operating expenses	600	Number of common shares	1,000
Accounts payable	240	outstanding	

The firm's net profit after taxes for 2005 was \_\_\_\_\_.

- A) -\$206.40
- B) \$213.80
- C) \$320.40
- D) \$206.25

Answer: C

Topic: Income Statement



- 2.1.55) On the balance sheet net fixed assets represent
- A) gross fixed assets at cost minus depreciation expense.
  - B) gross fixed assets at market value minus depreciation expense.
  - C) gross fixed assets at cost minus accumulated depreciation.
  - D) gross fixed assets at market value minus accumulated depreciation.

Answer: C

Topic: Balance Sheet

- 2.1.56) Paid-in-capital in excess of par represents the amount of proceeds
- A) from the original sale of stock.
  - B) in excess of the par value from the original sale of common stock.
  - C) at the current market value of common stock.
  - D) at the current book value of common stock.

Answer: B

Topic: Balance Sheet

- 2.1.57) Firm ABC had operating profits of \$100,000, taxes of \$17,000, interest expense of \$34,000 and preferred dividends of \$5,000. What was the firm's net profit after taxes?
- A) \$66,000
  - B) \$49,000
  - C) \$44,000
  - D) \$83,000

Answer: B

Topic: Income Statement

- 2.1.58) Candy Corporation had pretax profits of \$1.2 million, an average tax rate of 34 percent, and it paid preferred stock dividends of \$50,000. There were 100,000 shares outstanding and no interest expense. What were Candy Corporation's earnings per share?
- A) \$3.91
  - B) \$4.52
  - C) \$7.42
  - D) \$7.59

Answer: C

Topic: Income Statement

- 2.1.59) A firm had year end 2004 and 2005 retained earnings balances of \$670,000 and \$560,000, respectively. The firm paid \$10,000 in dividends in 2005. The firm's net profit after taxes in 2005 was \_\_\_\_\_.
- A) -\$100,000
  - B) -\$110,000
  - C) \$100,000
  - D) \$110,000

Answer: A

Topic: Income Statement

2.1.60) A corporation had year end 2004 and 2005 retained earnings balances of \$320,000 and \$400,000, respectively. The firm reported net profits after taxes of \$100,000 in 2005. The firm paid dividends in 2005 of \_\_\_\_\_.

- A) \$0
- B) \$20,000
- C) \$80,000
- D) \$100,000

Answer: B

Topic: Statement of Retained Earnings

2.1.61) A corporation had a year end 2004 retained earnings balance of \$220,000. The firm reported net profits after taxes of \$50,000 in 2005 and paid dividends in 2005 of \$30,000. The firm's retained earnings balance at year end 2005 was \_\_\_\_\_.

- A) \$240,000
- B) \$250,000
- C) \$270,000
- D) \$300,000

Answer: A

Topic: Statement of Retained Earnings

2.1.62) A firm had year end 2004 and 2005 retained earnings balance of \$670,000 and \$560,000, respectively. The firm reported net profits after taxes of \$100,000 in 2005. The firm paid dividends in 2005 of \_\_\_\_\_.

- A) \$10,000
- B) \$100,000
- C) \$110,000
- D) \$210,000

Answer: D

Topic: Statement of Retained Earnings

2.1.63) The 2002 law that established the Public Company Accounting Oversight Board (PCAOB) was called

- A) the McCain-Feingold Act.
- B) the Harkins-Oxley Act.
- C) the Sarbanes-Harkins Act.
- D) the Sarbanes-Oxley Act.

Answer: D

Topic: Accounting Standards and Regulation

2.1.64) The 2002 Sarbanes-Oxley Act was designed to

- A) limit the compensation that could be paid to corporate CEOs.
- B) eliminate the many disclosure and conflict of interest problems of corporations.
- C) provide uniform international accounting standards.
- D) two of the above.

Answer: B

Topic: Accounting Standards and Regulation

2.1.65) The Public Company Accounting Oversight Board (PCAOB)

- A) is a not-for-profit corporation that oversees auditors of public corporations.
- B) is a not-for-profit corporation that oversees managers of public corporations.
- C) is a for-profit corporation that oversees auditors of public corporations.
- D) is a for-profit corporation that oversees managers of public corporations.

Answer: A

Topic: Accounting Standards and Regulation

2.1.66) Ag Silver Mining, Inc. has \$500,000 of earnings before interest and taxes at the year end. Interest expenses for the year were \$10,000. The firm expects to distribute \$100,000 in dividends. Calculate the earnings after taxes for the firm assuming a 40 percent tax on ordinary income.

Answer:

Earnings before interest and taxes	\$500,000
Less: Interest	<u>10,000</u>
Earnings before taxes	\$490,000
Less: Taxes (40%)	<u>196,000</u>
Earnings after taxes	<u>\$294,000</u>

Topic: Income Statement

2.1.67) At the end of 2005, the Long Life Light Bulb Company announced it had produced a gross profit of \$1 million. The company has also established that over the course of this year it has incurred \$345,000 in operating expenses and \$125,000 in interest expenses. The company is subject to a 30% tax rate and has declared \$57,000 total preferred stock dividends.

- (a) How much is the earnings available for common stockholders?
- (b) Compute the increased retained earnings for 2005 if the company were to declare a \$4.25 common stock dividend. The company has 15,000 shares of common stock outstanding.

Answer:

(a) Gross Profits	\$1,000,000
Less: Operating expenses	<u>(345,000)</u>
Operating Profits	\$ 655,000
Less: Interest	<u>(125,000)</u>
Net Profits before taxes	\$ 530,000
Less: Taxes (30%)	<u>(159,000)</u>
Net Profits After Taxes	\$ 371,000
Less: Preferred Stock Dividend	<u>(57,000)</u>
Earnings Available for Common Stock	\$ 314,000
(b) Earnings Available for Common Stock	\$ 314,000
Dividend = (4.25)(15,000 shares)	<u>(63,750)</u>
Increased Retained Earnings	<u>\$ 250,250</u>

Topic: Income Statement

2.1.68) Reliable Auto Parts has 5,000 shares of common stock outstanding. The company also has the following amounts in revenue and expense accounts.

Sales revenue	\$ 85,000
General and administrative expense	7,500
Interest expense	3,500
Depreciation expense	5,000
Preferred stock dividends	500
Selling expense	4,000
Cost of goods sold	50,000

Calculate

- gross profits.
- operating profits.
- net profits before taxes.
- net profits after taxes (assume a 40 percent tax rate).
- cash flow from operations.
- earnings available to common stockholders.
- earnings per share.

Answer:

(a) Sales revenue		\$85,000
- cost of goods sold		<u>-50,000</u>
Gross profits		\$35,000
(b) Gross profits		\$35,000
- operating expenses		
Selling expense	4,000	
General & adm. expense	7,500	
Depreciation expense	<u>5,000</u>	<u>\$16,500</u>
Operating profits		\$18,500
(c) Operating profits		\$18,500
- interest expense		<u>-3,500</u>
Net profits before taxes		\$15,000
(d) Net profits before taxes		\$15,000
- taxes (40%)		<u>-6,000</u>
Net profits after taxes		\$9,000
(e) Net profits after taxes		\$9,000
+ depreciation expense		<u>+5,000</u>
Cash flow from operations		\$14,000
(f) Net profits after taxes		\$9,000
- preferred dividends		<u>-500</u>
earnings available for C.S.		\$8,500
(g) Earnings available for C.S.		\$8,500
	=	= \$1.70/share
	<u># of common shares outstanding</u>	<u>5,000</u>

Topic: Income Statement

2.1.69) Colonial Furniture's net profits before taxes for 2002 totaled \$354,000. The company's total retained earnings were \$338,000 for 2004 year end and \$389,000 for 2005 year end. Colonial is subject to a 26 percent tax rate. How large was the cash dividend declared by Colonial Furniture in 2005?

Answer:

Net Profits Before Taxes	\$354,000
Less: Taxes (26%)	<u>92,040</u>
Net Profits After Taxes	\$261,960
Retained Earnings (2004)	\$338,000
Net Profits After Taxes (2005)	261,960
Dividends	X
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Retained Earnings (2005)	\$389,000
Dividends = \$210,960	

Topic: Statement of Retained Earnings

2.1.70) On December 31, 2004, the Bradshaw Corporation had \$485,000 as an ending balance for its retained earnings account. During 2005, the corporation declared a \$3.50/share dividend to its stockholders. The Bradshaw Corporation has 35,000 shares of common stock outstanding. When the books were closed for 2005 year end, the corporation had a final retained earnings balance of \$565,000. What was the net profit earned by Bradshaw Corporation during 2005?

Answer:

Dividends = (\$3.50/share)(35,000 shares)	=	\$122,500
Retained Earnings (2004)		\$485,000
Net Profits After Taxes (2005)		X
Dividends		122,500
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Retained Earnings (2005)		\$565,000
Net Profits After Taxes = \$202,500		

Topic: Statement of Retained Earnings

2.1.71) The Sunshine Company had a retained earnings balance of \$850,000 at the beginning of 2005. By the end of 2005, the company's retained earnings balance was \$950,000. During 2005, the company earned \$245,000 as net profits after paying its taxes. The company was then able to pay its preferred stockholders \$45,000. Compute the common stock dividend per share in 2005 assuming 10,000 shares of common stock outstanding.

Answer:

Retained Earnings (2004)	\$850,000
Net Profits After Taxes (2005)	245,000
Preferred Stock Dividend	(45,000)
Common Stock Dividend	X
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Retained Earnings (2005)	\$950,000
Total common stock dividend = \$100,000	
Common stock dividend per share = $100,000/10,000 = \$10$	

Topic: Statement of Retained Earnings

## Learning Goal 2 Understand who uses financial ratios, and how.

2.2.1) Time-series analysis is the evaluation of the firm's financial performance in comparison to other firm(s) at the same point in time.

Answer: FALSE

Topic: Ratio Analysis Basics

2.2.2) As a rule, the necessary inputs to an effective financial analysis include, at minimum, the income statement and the statement of cash flow.

Answer: FALSE

Topic: Ratio Analysis Basics

2.2.3) Cross-sectional ratio analysis involves comparing the firm's ratios to those of firms in other industries at the same point in time.

Answer: FALSE

Topic: Ratio Analysis Basics

2.2.4) Benchmarking is a type of cross-sectional analysis in which the firm's ratio values are compared to those of firms in other industries, primarily to identify areas for improvement.

Answer: FALSE

Topic: Ratio Analysis Basics

2.2.5) Time-series analysis evaluates performance of firms at the same point in time using financial ratios.

Answer: FALSE

Topic: Ratio Analysis Basics

2.2.6) The firm's creditors are primarily interested in the short-term liquidity of the company and its ability to make interest and principal payments.

Answer: TRUE

Topic: Liquidity Analysis

2.2.7) Benchmarking is a type of time-series analysis in which the firm's ratio values are compared to those of a key competitor or group of competitors, primarily to isolate areas of opportunity for improvement.

Answer: FALSE

Topic: Ratio Analysis Basics

2.2.8) Ratio analysis merely directs the analyst to potential areas of concern; it does not provide conclusive evidence as to the existence of a problem.

Answer: TRUE

Topic: Ratio Analysis Basics

2.2.9) In a cross-sectional comparison of firms operating in several lines of business, the industry average ratios of any of the firm's product lines may be used to analyze the multiproduct firm's financial performance.

Answer: FALSE

Topic: Ratio Analysis Basics

2.2.10) Due to inflationary effects, inventory costs and depreciation write-offs can differ from their true values, thereby distorting profits.

Answer: TRUE

Topic: *Ratio Analysis Basics*

2.2.11) In ratio analysis, the financial statements being used for comparison should be dated at the same point in time during the year. If not, the effect of seasonality may produce erroneous conclusions and decisions.

Answer: TRUE

Topic: *Ratio Analysis Basics*

2.2.12) The use of the audited financial statements for ratio analysis may not be preferable because there may be no reason to believe that the data contained in them reflect the firm's true financial condition.

Answer: FALSE

Topic: *Ratio Analysis Basics*

2.2.13) Both present and prospective shareholders are interested in the firm's current and future level of risk and return. These two dimensions directly affect share price.

Answer: TRUE

Topic: *Ratio Analysis Basics*

2.2.14) The comparison of a particular ratio to the standard (industry average) is made in order to isolate any deviations from the norm. In the case of ratios for which higher values are preferred, as long as the firm that is being analyzed has a value in excess of the industry average it can be viewed favorably.

Answer: FALSE

Topic: *Ratio Analysis Basics*

2.2.15) The use of differing accounting treatments—especially relative to inventory and depreciation—can distort the results of ratio analysis, regardless of whether cross-sectional or time-series analysis is used.

Answer: TRUE

Topic: *Ratio Analysis Basics*

2.2.16) Inflationary effects typically have a greater impact the larger the differences in the age of the assets of the firms being compared. Without adjustment, inflation tends to cause older firms (with older fixed assets) to appear more efficient and profitable than newer firms (with newer fixed assets).

Answer: TRUE

Topic: *Ratio Analysis Basics*

2.2.17) Present and prospective shareholders and lenders pay close attention to the firm's degree of indebtedness and ability to repay debt. Shareholders are concerned since the claims of creditors must be satisfied prior to the distribution of earnings to them. Lenders are concerned since the more indebted the firm, the higher the probability that the firm will be unable to satisfy the claims of all its creditors.

Answer: TRUE

Topic: *Leverage Analysis*

- 2.2.18) Ratios provide a \_\_\_\_\_ measure of a company's performance and condition.
- A) definitive
  - B) gross
  - C) relative
  - D) qualitative

Answer: C

Topic: Ratio Analysis Basics

- 2.2.19) \_\_\_\_\_ analysis involves the comparison of different firms' financial ratios at the same point in time.
- A) Time-series
  - B) Cross-sectional
  - C) Marginal
  - D) Quantitative

Answer: B

Topic: Ratio Analysis Basics

- 2.2.20) \_\_\_\_\_ analysis involves comparison of current to past performance and the evaluation of developing trends.
- A) Time-series
  - B) Cross-sectional
  - C) Marginal
  - D) Quantitative

Answer: A

Topic: Ratio Analysis Basics

- 2.2.21) The primary concern of creditors when assessing the strength of a firm is the firm's
- A) profitability.
  - B) leverage.
  - C) short-term liquidity.
  - D) share price.

Answer: C

Topic: Liquidity Analysis

- 2.2.22) Present and prospective shareholders are mainly concerned with a firm's
- A) risk and return.
  - B) profitability.
  - C) leverage.
  - D) liquidity.

Answer: A

Topic: Ratio Analysis Basics

- 2.2.23) To analyze the firm's financial performance, the following types of ratio analyses EXCEPT \_\_\_\_\_ may be used.
- A) time-series analysis
  - B) cross-section analysis
  - C) combined analysis
  - D) marginal analysis

Answer: D

Topic: Ratio Analysis Basics



- 2.2.24) Time-series analysis is often used to
- A) assess developing trends.
  - B) correct errors of judgment.
  - C) reflect performance relative to some norm.
  - D) standardize results.

Answer: A

Topic: Ratio Analysis Basics

- 2.2.25) In ratio analysis, a comparison to a standard industry ratio is made to isolate \_\_\_\_\_ deviations from the norm.
- A) positive
  - B) negative
  - C) any
  - D) standard

Answer: C

Topic: Ratio Analysis Basics

- 2.2.26) \_\_\_\_\_ evidence of the existence of a problem or outstanding management performance is provided by ratio analysis.
- A) Conclusive
  - B) Inconclusive
  - C) Complete
  - D) Definitive

Answer: B

Topic: Ratio Analysis Basics

- 2.2.27) The analyst should be careful when conducting ratio analysis to ensure that
- A) the overall performance of the firm is not judged on a single ratio.
  - B) the dates of the financial statements being compared are the same.
  - C) audited statements are used.
  - D) the same accounting procedures were used.
  - E) all of the above.

Answer: E

Topic: Ratio Analysis Basics

- 2.2.28) The analyst should be careful when evaluating a ratio analysis that
- A) pre-audited statements are used.
  - B) the dates of the financial statements being compared are the same time.
  - C) neither A nor B.
  - D) both A and B.

Answer: B

Topic: Ratio Analysis Basics

2.2.29) \_\_\_\_\_ is where the firm's ratio values are compared to those of a key competitor or group of competitors, primarily to identify areas for improvement.

- A) Time-series analysis
- B) Benchmarking
- C) Combined analysis
- D) None of the above

Answer: B

Topic: Ratio Analysis Basics

2.2.30) Cross-sectional ratio analysis is used to

- A) correct expected problems in operations.
- B) isolate the causes of problems.
- C) provide conclusive evidence of the existence of a problem.
- D) reflect the symptoms of a possible problem.

Answer: D

Topic: Ratio Analysis Basics

2.2.31) Inflation can distort

- A) inventory costs.
- B) cost of goods sold.
- C) interest write-offs.
- D) salaries and wages.

Answer: A

Topic: Ratio Analysis Basics

2.2.32) Without adjustment, inflation may tend to cause \_\_\_\_\_ firms to appear more efficient and profitable than \_\_\_\_\_ firms, all else being the same.

- A) large; smaller
- B) older; newer
- C) smaller; larger
- D) newer; older

Answer: B

Topic: Ratio Analysis Basics

2.2.33) The following groups of ratios primarily measure risk.

- A) liquidity, activity, and profitability
- B) liquidity, activity, and common stock
- C) liquidity, activity, and debt
- D) activity, debt, and profitability

Answer: C

Topic: Ratio Analysis Basics

2.2.34) The \_\_\_\_\_ ratios are primarily measures of return.

- A) liquidity
- B) activity
- C) debt
- D) profitability

Answer: D

Topic: Profitability Analysis

2.2.35) Discuss the limitations of ratio analysis and the cautions which must be taken when reviewing a cross-sectional and time-series analysis.

Answer: In summarizing a large number of ratios, all aspects of the firm's activities can be assessed. However, limitations of ratio analysis must be recognized. A comparison of current and past ratios may reveal mismanagement. But, the ratio does not give definitive cause to the problem. Additional investigation is necessary to confirm the possible problem. The analyst must be cautious of the following points: 1) a single ratio does not provide sufficient information to judge the overall performance of the firm, 2) the dates of the financial statements should be the same, 3) audited statements should be used, 4) similar accounting treatment of comparative data is essential, and 5) inflation and differing asset ages can distort ratio comparisons.

*Topic: Ratio Analysis Basics*

### Learning Goal 3 Use ratios to analyze a firm's liquidity and activity.

2.3.1) The liquidity of a business firm refers to the solvency of the firm's overall financial position.

Answer: TRUE

*Topic: Liquidity Analysis*

2.3.2) The liquidity of a business firm is measured by its ability to satisfy its long-term obligations as they come due.

Answer: FALSE

*Topic: Liquidity Analysis*

2.3.3) The current ratio provides a better measure of overall liquidity only when a firm's inventory cannot easily be converted into cash. If inventory is liquid, the quick ratio is a preferred measure of overall liquidity.

Answer: FALSE

*Topic: Liquidity Analysis*

2.3.4) Since the differences in the composition of a firm's current assets and liabilities can significantly affect the firm's "true" liquidity, it is important to look beyond measures of overall liquidity to assess the activity (liquidity) of specific current accounts.

Answer: TRUE

*Topic: Liquidity Analysis*

2.3.5) The average age of inventory is viewed as the average length of time inventory is held by the firm or as the average number of days' sales in inventory.

Answer: TRUE

*Topic: Activity Analysis*

2.3.6) Total asset turnover commonly measures the liquidity of a firm's total assets.

Answer: FALSE

*Topic: Activity Analysis*

2.3.7) The average age of inventory can be calculated as inventory divided by 365.

Answer: FALSE

*Topic: Activity Analysis*

2.3.8) The average age of inventory can be calculated as inventory turnover divided by 365.

Answer: FALSE

Topic: Activity Analysis

2.3.9) The average age of inventory can be calculated as 365 divided by inventory turnover.

Answer: TRUE

Topic: Activity Analysis

2.3.10) The average payment period can be calculated as accounts payable divided by average sales per day.

Answer: FALSE

Topic: Activity Analysis

2.3.11) The average payment period can be calculated as accounts payable divided by average purchases per day.

Answer: TRUE

Topic: Activity Analysis

2.3.12) The \_\_\_\_\_ of a business firm is measured by its ability to satisfy its short-term obligations as they come due.

- A) activity
- B) liquidity
- C) debt
- D) profitability

Answer: B

Topic: Liquidity Analysis

2.3.13) \_\_\_\_\_ ratios are a measure of the speed with which various accounts are converted into sales or cash.

- A) Activity
- B) Liquidity
- C) Debt
- D) Profitability

Answer: A

Topic: Activity Analysis

2.3.14) The \_\_\_\_\_ is useful in evaluating credit and collection policies.

- A) average payment period
- B) current ratio
- C) average collection period
- D) current asset turnover

Answer: C

Topic: Activity Analysis

- 2.3.15) The \_\_\_\_\_ measures the activity, or liquidity, of a firm's inventory.
- A) average collection period
  - B) inventory turnover
  - C) quick ratio
  - D) current ratio

Answer: B

Topic: Activity Analysis

- 2.3.16) The two basic measures of liquidity are
- A) inventory turnover and current ratio.
  - B) current ratio and quick ratio.
  - C) gross profit margin and ROE.
  - D) current ratio and total asset turnover.

Answer: B

Topic: Liquidity Analysis

- 2.3.17) The \_\_\_\_\_ is a measure of liquidity which excludes \_\_\_\_\_, generally the least liquid asset.
- A) current ratio; accounts receivable
  - B) quick ratio; accounts receivable
  - C) current ratio; inventory
  - D) quick ratio; inventory

Answer: D

Topic: Liquidity Analysis

- 2.3.18) The \_\_\_\_\_ ratio may indicate the firm is experiencing stockouts and lost sales.
- A) average payment period
  - B) inventory turnover
  - C) average collection period
  - D) quick

Answer: B

Topic: Activity Analysis

- 2.3.19) The \_\_\_\_\_ ratio may indicate poor collections procedures or a lax credit policy.
- A) average payment period
  - B) inventory turnover
  - C) average collection period
  - D) quick

Answer: C

Topic: Activity Analysis

- 2.3.20) ABC Corp. extends credit terms of 45 days to its customers. Its credit collection would likely be considered poor if its average collection period was
- A) 30 days.
  - B) 36 days.
  - C) 47 days.
  - D) 57 days.

Answer: D

Topic: Activity Analysis

2.3.21) Which of the following ratios is difficult for creditors of a firm to analyze because the data are usually not available in published financial statements?

- A) Operating leverage.
- B) Average payment period.
- C) Quick ratio.
- D) Average age of inventory.

Answer: A

Topic: Leverage Analysis

2.3.22) \_\_\_\_\_ are especially interested in the average payment period, since it provides them with a sense of the bill-paying patterns of the firm.

- A) Customers
- B) Stockholders
- C) Lenders and suppliers
- D) Borrowers and buyers

Answer: C

Topic: Activity Analysis

2.3.23) A firm has a current ratio of 1; in order to improve its liquidity ratios, this firm might

- A) improve its collection practices, thereby increasing cash and increasing its current and quick ratios.
- B) improve its collection practices and pay accounts payable, thereby decreasing current liabilities and increasing the current and quick ratios.
- C) decrease current liabilities by utilizing more long-term debt, thereby increasing the current and quick ratios.
- D) increase inventory, thereby increasing current assets and the current and quick ratios.

Answer: C

Topic: Liquidity Analysis

2.3.24) As a firm's cash flows become more predictable,

- A) the current ratio should expand.
- B) the return on equity should increase.
- C) current liabilities should decrease.
- D) current assets should decrease.

Answer: D

Topic: Liquidity Analysis

2.3.25) If the inventory turnover is divided into 365, it becomes a measure of

- A) sales efficiency.
- B) the average age of the inventory.
- C) sales turnover.
- D) the average collection period.

Answer: B

Topic: Activity Analysis

- 2.3.26) The \_\_\_\_\_ is useful in evaluating credit and collection policies.
- A) average payment period
  - B) current ratio
  - C) average collection period
  - D) current asset turnover

Answer: C

Topic: Activity Analysis

- 2.3.27) The two categories of ratios that should be utilized to assess a firm's true liquidity are the
- A) current and quick ratios.
  - B) liquidity and profitability ratios.
  - C) liquidity and debt ratios.
  - D) liquidity and activity ratios.

Answer: D

Topic: Liquidity Analysis

- 2.3.28) A firm with a total asset turnover that is lower than industry standard but with a current ratio which meets industry standard must have excessive
- A) fixed assets.
  - B) inventory.
  - C) accounts receivable.
  - D) debt.

Answer: A

Topic: Activity Analysis

- 2.3.29) A firm with a total asset turnover lower than industry standard may have
- A) excessive debt.
  - B) excessive cost of goods sold.
  - C) insufficient sales.
  - D) insufficient fixed assets.

Answer: C

Topic: Activity Analysis

- 2.3.30) If Nico Corporation has cost of goods sold of \$300,000 and inventory of \$30,000, then the inventory turnover is \_\_\_\_\_ and the average age of inventory is \_\_\_\_\_.
- A) 36.5; 10
  - B) 10; 36.5
  - C) 36.0; 10
  - D) 10; 36.0

Answer: B

Topic: Activity Analysis

- 2.3.31) If Nico Corporation has annual purchases of \$300,000 and accounts payable of \$30,000, then average purchases per day are \_\_\_\_\_ and the average payment period is \_\_\_\_\_.
- A) 36.5; 821.9
  - B) 36.0; 833.3
  - C) 821.9; 36.5
  - D) 833.3; 36.0

Answer: C

Topic: Activity Analysis

### Learning Goal 4 Discuss the relationship between debt and financial leverage and the ratios used to analyze a firm's debt.

2.4.1) The magnification of risk and return introduced through the use of fixed-cost financing such as debt and preferred stock is called financial leverage.

Answer: TRUE

Topic: Leverage Analysis

2.4.2) The less fixed-cost debt (financial leverage) a firm uses, the greater will be its risk and return.

Answer: FALSE

Topic: Leverage Analysis

2.4.3) The higher the value of the times interest earned ratio, the higher the proportion of the firm's interest income compared to its contractual interest payments.

Answer: FALSE

Topic: Leverage Analysis

2.4.4) In general, the more debt (other people's money) a firm uses in relation to its assets, the smaller its financial leverage.

Answer: FALSE

Topic: Leverage Analysis

2.4.5) The lower the fixed-payment coverage ratio, the lower is the firm's financial leverage.

Answer: FALSE

Topic: Leverage Analysis

2.4.6) The higher the debt ratio, the more financial leverage a firm has and, thus, the greater will be its risk and return.

Answer: TRUE

Topic: Leverage Analysis

2.4.7) Typically, higher coverage ratios are preferred, but too high a ratio may indicate under-utilization of fixed-payment obligations, which may result in unnecessarily low risk and return.

Answer: TRUE

Topic: Leverage Analysis

2.4.8) The \_\_\_\_\_ ratio measures the proportion of total assets financed by the firm's creditors.

- A) total asset turnover
- B) fixed asset turnover
- C) current
- D) debt

Answer: D

Topic: Leverage Analysis



- 2.4.9) The \_\_\_\_\_ ratio measures the firm's ability to pay contractual interest payments.
- A) times interest earned
  - B) fixed-payment coverage
  - C) debt
  - D) average payment period

Answer: A

Topic: Leverage Analysis

- 2.4.10) The \_\_\_\_\_ ratio may indicate that the firm will not be able to meet interest obligations due on outstanding debt.
- A) debt
  - B) net profit margin
  - C) return on total assets
  - D) times interest earned

Answer: D

Topic: Leverage Analysis

- 2.4.11) The higher the value of \_\_\_\_\_ ratio, the better able the firm is to fulfill its interest obligations.
- A) debt
  - B) average collection period
  - C) times interest earned
  - D) average payment period

Answer: C

Topic: Leverage Analysis

Table 2.1

<b>Balance Sheet</b>			
<b>Cole Eagan Enterprises</b>			
<b>December 31, 2005</b>			
Cash	\$4,500	Accounts Payable	\$10,000
Accounts Receivable		Notes Payable	
Inventory		Accruals	1,000
Total Current Assets		Total Current Liabilities	
Net Fixed Assets		Long-Term Debt	
Total Assets		Stockholders' Equity	
		Total Liabilities & S.E.	

Information (2005 values)

1. Sales totaled \$110,000
2. The gross profit margin was 25 percent.
3. Inventory turnover was 3.0.
4. There are 360 days in the year.
5. The average collection period was 65 days.
6. The current ratio was 2.40.
7. The total asset turnover was 1.13.
8. The debt ratio was 53.8 percent.

2.4.12) Inventory for CEE in 2005 was \_\_\_\_\_. (See Table 2.1)

- A) \$36,667
- B) \$32,448
- C) \$27,500
- D) \$ 9,167

Answer: C

Topic: Balance Sheet and Activity Analysis

2.4.13) Notes payable for CEE in 2005 was \_\_\_\_\_. (See Table 2.1)

- A) \$113,466
- B) \$ 52,372
- C) \$ 41,372
- D) \$ 10,609

Answer: D

Topic: Balance Sheet and Activity Analysis

2.4.14) Accounts receivable for CEE in 2005 was \_\_\_\_\_. (See Table 2.1)

- A) \$14,056
- B) \$19,861
- C) \$14,895
- D) \$18,333

Answer: B

Topic: Balance Sheet and Activity Analysis

- 2.4.15) Net fixed assets for CEE in 2005 were \_\_\_\_\_. (See Table 2.1)
- A) \$45,484
  - B) \$48,975
  - C) \$54,511
  - D) \$69,341

Answer: A

Topic: Balance Sheet and Activity Analysis

- 2.4.16) Total assets for CEE in 2005 were \_\_\_\_\_. (See Table 2.1)
- A) \$ 45,895
  - B) \$124,300
  - C) \$ 58,603
  - D) \$ 97,345

Answer: D

Topic: Balance Sheet and Activity Analysis

- 2.4.17) Long-term debt for CEE in 2005 was \_\_\_\_\_. (See Table 2.1)
- A) \$30,763
  - B) \$52,372
  - C) \$10,608
  - D) \$41,372

Answer: A

Topic: Balance Sheet and Activity Analysis

- 2.4.18) \_\_\_\_\_ is a term used to describe the magnification of risk and return introduced through the use of fixed cost financing such as preferred stock and long-term debt.
- A) Financial leverage
  - B) Operating leverage
  - C) Fixed-payment coverage
  - D) The acid-test

Answer: A

Topic: Leverage Analysis

- 2.4.19) When assessing the fixed-payment coverage ratio,
- A) the lower its value the more risky is the firm.
  - B) the lower its value, the lower is the firm's financial leverage.
  - C) preferred stock dividend payments can be disregarded.
  - D) the higher its value, the higher is the firm's liquidity.

Answer: A

Topic: Leverage Analysis

### Learning Goal 5 Use ratios to analyze a firm's profitability and its market value.

- 2.5.1) Earnings per share represent the dollar amount earned and distributed to shareholders.

Answer: FALSE

Topic: Profitability Analysis

2.5.2) Gross profit margin measures the percentage of each sales dollar left after the firm has paid for its goods and operating expenses.

Answer: FALSE

Topic: Profitability Analysis

2.5.3) Net profit margin measures the percentage of each sales dollar remaining after all costs and expenses, including interest, taxes, and common stock dividends, have been deducted.

Answer: FALSE

Topic: Profitability Analysis

2.5.4) Return on total assets (ROA) measures the overall effectiveness of management in generating profits with the owners' investment in the firm.

Answer: FALSE

Topic: Profitability Analysis

2.5.5) The price/earnings (P/E) ratio represents the degree of confidence that investors have in the firm's future performance.

Answer: TRUE

Topic: Market Value Analysis

2.5.6) The \_\_\_\_\_ is a popular approach for evaluating profitability in relation to sales by expressing each item on the income statement as a percent of sales.

- A) retained earnings statement
- B) source and use statement
- C) common-size income statement
- D) profit and loss statement

Answer: C

Topic: Common Size Analysis

2.5.7) The \_\_\_\_\_ indicates the percentage of each sales dollar remaining after the firm has paid for its goods.

- A) net profit margin
- B) operating profit margin
- C) gross profit margin
- D) earnings available to common shareholders

Answer: C

Topic: Profitability Analysis

2.5.8) The \_\_\_\_\_ measures the percentage of profit earned on each sales dollar before interest and taxes.

- A) net profit margin
- B) operating profit margin
- C) gross profit margin
- D) earnings available to common shareholders

Answer: B

Topic: Profitability Analysis

2.5.9) The \_\_\_\_\_ measures the percentage of each sales dollar remaining after ALL expenses, including taxes, have been deducted.

- A) net profit margin
- B) operating profit margin
- C) gross profit margin
- D) earnings available to common shareholders

Answer: A

Topic: Profitability Analysis

2.5.10) The \_\_\_\_\_ measures the overall effectiveness of management in generating profits with its available assets.

- A) net profit margin
- B) price/earnings ratio
- C) return on equity
- D) return on total assets

Answer: D

Topic: Profitability Analysis

2.5.11) The \_\_\_\_\_ measures the return on owners' (both preferred and common stockholders) investment in the firm.

- A) net profit margin
- B) price/earnings ratio
- C) return on equity
- D) return on total assets

Answer: C

Topic: Profitability Analysis

2.5.12) The \_\_\_\_\_ ratio is commonly used to assess the owner's appraisal of the share value.

- A) debt
- B) price/earnings
- C) return on equity
- D) return on total assets

Answer: B

Topic: Market Value Analysis

2.5.13) Two frequently cited ratios of profitability that can be read directly from the common-size income statement are

- A) the earnings per share and the return on total assets.
- B) the gross profit margin and the earnings per share.
- C) the gross profit margin and the return on total assets.
- D) the gross profit margin and the net profit margin.

Answer: D

Topic: Profitability Analysis

- 2.5.14) A firm with a gross profit margin which meets industry standard and a net profit margin which is below industry standard must have excessive
- A) general and administrative expenses.
  - B) cost of goods sold.
  - C) dividend payments.
  - D) principal payments.

Answer: A

Topic: Profitability Analysis

- 2.5.15) A firm with sales of \$1,000,000, net profits after taxes of \$30,000, total assets of \$1,500,000, and total liabilities of \$750,000 has a return on equity of
- A) 20 percent.
  - B) 15 percent.
  - C) 3 percent.
  - D) 4 percent.

Answer: D

Topic: Dupont System Analysis

### Learning Goal 6 Use a summary of financial ratios and the DuPont system of analysis to perform a complete ratio analysis.

- 2.6.1) The financial leverage multiplier is the ratio of the firm's total assets to stockholders' equity.

Answer: TRUE

Topic: Leverage Analysis

- 2.6.2) The DuPont formula allows the firm to break down its return into the net profit margin, which measures the firm's profitability on sales, and its total asset turnover, which indicates how efficiently the firm has used its assets to generate sales.

Answer: TRUE

Topic: Dupont System Analysis

- 2.6.3) The DuPont system allows the firm to break its return on equity into a profit-on-sales component, an efficiency-of-asset-use component, and a use-of-leverage component.

Answer: TRUE

Topic: Dupont System Analysis

- 2.6.4) The DuPont system merges the income statement and balance sheet into two summary measures of profitability:
- A) net profit margin and return on total assets.
  - B) net profit margin and return on equity.
  - C) return on total assets and return on equity.
  - D) net profit margin and price/earning ratio.

Answer: C

Topic: Dupont System Analysis

2.6.5) \_\_\_\_\_ is used by financial managers as a structure for dissecting the firm's financial statements to assess its financial condition.

- A) Statement of cash flows
- B) The DuPont system of analysis
- C) A common-size income statement
- D) Cross-sectional analysis

Answer: B

Topic: Dupont System Analysis

2.6.6) In the DuPont system, the return on total assets (asset) is equal to

- A) (return on equity)  $\times$  (financial leverage multiplier).
- B) (return on equity)  $\times$  (total asset turnover).
- C) (net profit margin)  $\times$  (fixed asset turnover).
- D) (net profit margin)  $\times$  (total asset turnover).

Answer: D

Topic: Dupont System Analysis

2.6.7) The modified DuPont formula relates the firm's return on total assets (ROA) to the

- A) return on equity (ROE).
- B) financial leverage multiplier.
- C) net profit margin.
- D) total asset turnover.

Answer: A

Topic: Dupont System Analysis

2.6.8) In the DuPont system, the return on equity is equal to

- A) (net profit margin)  $\times$  (total asset turnover).
- B) (stockholders' equity)  $\times$  (financial leverage multiplier).
- C) (return on total assets)  $\times$  (financial leverage multiplier).
- D) (return on total assets)  $\times$  (total asset turnover).

Answer: C

Topic: Dupont System Analysis

2.6.9) A firm with a substandard net profit margin can improve its return on total assets by

- A) increasing its debt ratio.
- B) increasing its total asset turnover.
- C) decreasing its fixed asset turnover.
- D) decreasing its total asset turnover.

Answer: B

Topic: Dupont System Analysis

2.6.10) A decrease in total asset turnover will result in \_\_\_\_\_ in the return on equity.

- A) an increase
- B) a decrease
- C) no change
- D) an undetermined change

Answer: B

Topic: Dupont System Analysis

2.6.11) A firm with a substandard return on total assets can improve its return on equity, all else remaining the same, by

- A) increasing its debt ratio.
- B) increasing its total asset turnover.
- C) decreasing its debt ratio.
- D) decreasing its total asset turnover.

Answer: A

Topic: Dupont System Analysis

2.6.12) The three summary ratios basic to the DuPont system of analysis are

- A) net profit margin, total asset turnover, and return on investment.
- B) net profit margin, total asset turnover, and return on equity.
- C) net profit margin, total asset turnover, and equity multiplier.
- D) net profit margin, financial leverage multiplier, and return on equity.

Answer: C

Topic: Dupont System Analysis

2.6.13) The financial leverage multiplier is an indicator of how much \_\_\_\_\_ a corporation is utilizing.

- A) operating leverage
- B) long-term debt
- C) total debt
- D) total assets

Answer: C

Topic: Leverage Analysis

2.6.14) The financial leverage multiplier is an indicator of

- A) operating leverage.
- B) financial leverage.
- C) long-term debt.
- D) current liabilities.

Answer: B

Topic: Leverage Analysis

2.6.15) Using the DuPont system of analysis and holding other factors constant, an increase in financial leverage will result in \_\_\_\_\_ in the return on equity.

- A) an increase
- B) a decrease
- C) no change
- D) an undetermined change

Answer: A

Topic: Dupont System Analysis



2.6.16) A firm with a total asset turnover lower than the industry standard and a current ratio which meets the industry standard may have

- A) excessive fixed assets.
- B) excessive inventory.
- C) excessive accounts receivable.
- D) excessive debt.

Answer: A

*Topic: Activity Analysis*

2.6.17) A firm with a total asset turnover lower than the industry standard may have

- A) excessive debt.
- B) excessive cost of goods sold.
- C) insufficient sales.
- D) insufficient fixed assets.

Answer: C

*Topic: Activity Analysis*

Table 2.2

<b>Dana Dairy Products Key Ratios</b>			
	<b>Industry Average</b>	<b>Actual 2004</b>	<b>Actual 2005</b>
Current Ratio	1.3	1.0	
Quick Ratio	0.8	0.75	
Average collection Period	23 days	30 days	
Inventory Turnover	21.7	19	
Debt Ratio	64.7%	50%	
Times Interest Earned	4.8	5.5	
Gross Profit Margin	13.6%	12.0%	
Net Profit Margin	1.0%	0.5%	
Return on total assets	2.9%	2.0%	
Return on Equity	8.2%	4.0%	

**Income Statement**  
**Dana Dairy Products**  
**For the Year Ended December 31, 2005**

Sales Revenue	\$100,000
Less: Cost of Goods Sold	<u>87,000</u>
Gross Profits	\$13,000
Less: Operating Expenses	<u>11,000</u>
Operating Profits	\$2,000
Less: Interest Expense	<u>500</u>
Net Profits Before Taxes	\$1,500
Less: Taxes (40%)	<u>600</u>
Net Profits After Taxes	<u>\$900</u>

**Balance Sheet**  
**Dana Dairy Products**  
**December 31, 2005**

<b>Assets</b>	
Cash	\$ 1,000
Accounts Receivable	8,900
Inventories	<u>4,350</u>
Total Current Assets	\$14,250
Gross Fixed Assets	\$35,000
Less: Accumulated Depreciation	<u>13,250</u>
Net Fixed Assets	<u>21,750</u>
Total Assets	\$36,000
<b>Liabilities &amp; Stockholders' Equity</b>	
Accounts Payable	\$ 9,000
Accruals	<u>6,675</u>
Total Current Liabilities	\$15,675
Long-term Debt	<u>4,125</u>
Total Liabilities	\$19,800
Common Stock	1,000
Retained Earnings	<u>15,200</u>
Total Stockholders' Equity	\$16,200
Total Liabilities & Stockholders Equity	<u>\$36,000</u>

2.6.18) The current ratio for Dana Dairy Products in 2005 was \_\_\_\_\_. (See Table 2.2)

- A) 1.58
- B) 0.63
- C) 1.10
- D) 0.91

Answer: D

Topic: Liquidity Analysis

2.6.19) Since 2004, the liquidity of Dana Dairy Products \_\_\_\_\_. (See Table 2.2)

- A) has deteriorated
- B) remained the same
- C) has improved
- D) cannot be determined

Answer: A

Topic: Liquidity Analysis

2.6.20) The net working capital for Dana Dairy Products in 2005 was \_\_\_\_\_. (See Table 2.2)

- A) \$10,325
- B) \$ 1,425
- C) -\$ 1,425
- D) \$14,250

Answer: C

Topic: Liquidity Analysis

2.6.21) The inventory turnover for Dana Dairy Products in 2005 was \_\_\_\_\_. (See Table 2.2)

- A) 43
- B) 5
- C) 20
- D) 25

Answer: C

Topic: Activity Analysis

2.6.22) The inventory management at Dana Dairy Products \_\_\_\_\_ since 2004. (See Table 2.2)

- A) has deteriorated
- B) remained the same
- C) has improved slightly
- D) cannot be determined

Answer: C

Topic: Activity Analysis

2.6.23) The average collection period for Dana Dairy Products in 2005 was (See Table 2.2)

- A) 32.5 days.
- B) 11.8 days.
- C) 25.3 days.
- D) 35.9 days.

Answer: A

Topic: Activity Analysis

2.6.24) If Dana Dairy Products has credit terms which specify that accounts receivable should be paid in 25 days, the average collection period \_\_\_\_\_ since 2004. (See Table 2.2)

- A) has deteriorated
- B) remained the same
- C) has improved
- D) cannot be determined

Answer: A

Topic: Activity Analysis

2.6.25) Dana Dairy Products had a \_\_\_\_\_ degree of financial leverage than the industry standard, resulting in \_\_\_\_\_. (See Table 2.2)

- A) lower; lower return on total assets
- B) lower; lower return on equity
- C) higher; higher return on equity
- D) higher; higher return on total assets

Answer: B

Topic: Leverage Analysis

2.6.26) The debt ratio for Dana Dairy Products in 2005 was (See Table 2.2)

- A) 50 percent.
- B) 11 percent.
- C) 55 percent.
- D) 44 percent.

Answer: C

Topic: Leverage Analysis

2.6.27) Dana Dairy Products' gross profit margin was inferior to the industry standard. This may have resulted from (See Table 2.2)

- A) a high sales price.
- B) the high cost of goods sold.
- C) excessive selling and administrative expenses.
- D) excessive interest expense.

Answer: B

Topic: Profitability Analysis

2.6.28) The gross profit margin and net profit margin for Dana Dairy Products in 2005 were (See Table 2.2)

- A) 13 percent and 0.9 percent, respectively.
- B) 13 percent and 1.5 percent, respectively.
- C) 2 percent and 0.9 percent, respectively.
- D) 2 percent and 1.5 percent, respectively.

Answer: A

Topic: Profitability Analysis

- 2.6.29) The return on total assets for Dana Dairy Products for 2005 was (See Table 2.2)
- A) 0.9 percent.
  - B) 5.5 percent.
  - C) 25 percent.
  - D) 2.5 percent.

Answer: D

Topic: Profitability Analysis

- 2.6.30) The return on equity for Dana Dairy Products for 2005 was (See Table 2.2)
- A) 0.6 percent.
  - B) 5.6 percent.
  - C) 0.9 percent.
  - D) 50 percent.

Answer: B

Topic: Profitability Analysis

- 2.6.31) Using the modified DuPont formula allows the analyst to break Dana Dairy Products return on equity into 3 components: the net profit margin, the total asset turnover, and a measure of leverage (the financial leverage multiplier). Which of the following mathematical expressions represents the modified DuPont formula relative to Dana Dairy Products' 2005 performance? (See Table 2.2)

- A)  $5.6(\text{ROE}) = 2.5(\text{ROA}) \times 2.24(\text{Financial leverage multiplier})$
- B)  $5.6(\text{ROE}) = 3.3(\text{ROA}) \times 1.70(\text{Financial leverage multiplier})$
- C)  $4.0(\text{ROE}) = 2.0(\text{ROA}) \times 2.00(\text{Financial leverage multiplier})$
- D)  $2.5(\text{ROE}) = 5.6(\text{ROA}) \times 0.44(\text{Financial leverage multiplier})$

Answer: A

Topic: Dupont System Analysis

- 2.6.32) As the financial leverage multiplier increases this may result in
- A) an increase in the net profit margin and return on investment, due to the decrease in interest expense as debt decreases.
  - B) an increase in the net profit margin and return on investment, due to the increase in interest expense as debt increases.
  - C) a decrease in the net profit margin and return on investment, due to the increase in interest expense as debt increases.
  - D) a decrease in the net profit margin and return on investment, due to the decrease in interest expense as debt decreases.

Answer: C

Topic: Dupont System Analysis

2.6.33)

<b>Key Financial Data</b>		
<b>Ratio (% of Sales)</b>	<b>Dreamscape, Inc. For the Year Ended December 31, 2004</b>	<b>Industry Average For the Year Ended December 31, 2005</b>
Cost of goods sold	74.5%	70.0%
Gross profits	25.5	30.0
Selling expense	8.0	7.0
Gen. & admin. expense	5.1	4.9
Depreciation expense	2.4	2.0
Total operating expense	15.5	13.9
Operating profits	10.0	16.1
Interest expense	1.4	1.0
Net profits before taxes	8.6	15.1
Taxes	2.4	6.0
Net profits after taxes	5.2	9.1

**Income Statement, Dreamscape, Inc.  
For the Year Ended December 31, 2005**

Sales revenue	\$1,000,000
Less: Cost of goods sold	<u>750,000</u>
Gross profits	\$ 250,000
Less: Operating expenses	
Selling Expense	\$70,000
Gen. & admin. expense	48,000
Depreciation expense	<u>20,000</u>
Total operating expense	<u>\$ 138,000</u>
Operating profits	\$ 112,000
Less: Interest expense	<u>\$ 20,000</u>
Net profits before taxes	\$ 92,000
Less: Taxes	<u>\$ 36,800</u>
Net profits after taxes	<u>\$ 55,200</u>

Prepare a common-size income statement for Dreamscape, Inc. for the year ended December 31, 2005. Evaluate the company's performance against industry average ratios and against last year's results.

Answer:

**Common-Size Income Statement  
Dreamscape, Inc.**

**For the Year Ended December 31, 2005**

Sales revenue	100%
Less: Cost of goods sold	<u>75%</u>
Gross profits	25%
Less: Operating expenses	
Selling Expense	7.0%
Gen. & admin. expense	4.8%
Depreciation expense	<u>2.0%</u>
Total operating expense	<u>13.8%</u>
Operating profits	11.2%
Less: Interest expense	<u>2.0%</u>
Net profits before taxes	9.2%
Less: Taxes	<u>3.68%</u>
Net profits after taxes	<u>5.52%</u>

Dreamscape, Inc. performs significantly below industry average. All profitability ratios (gross profit margin, operating profit margin, and net profit margin) trail the industry norms. In 2004 expenses as a percent of sales were high.

Dreamscape, Inc. improved the management of operating expenses in 2005 meeting industry averages. However, cost of goods sold as a percent of sales increased and is a full 5 percent above the industry average, further reducing the gross profit margin. Interest expense is two times the average indicating high cost of debt or a high debt level. The firm must concentrate on reducing the cost of goods sold and interest expense to improve performance.

*Topic: Common Size Statement Analysis*

- 2.6.34) In an effort to analyze Clockwork Company finances, Jim realized that he was missing the company's net profits after taxes for the current year. Find the company's net profits after taxes using the following information.

Return on total assets = 2%

Total Asset Turnover = 0.5

Cost of Goods Sold = \$105,000

Gross Profit Margin = 0.30

Answer: Sales = CGS/(1 - GPM) = 105,000/(1 - 0.30) = \$150,000

Total Assets = Sales/(Total Asset Turnover)

= 150,000/0.50 = \$300,000

Net Profits After Taxes = (ROA) × (Total Assets)

= (0.02) × (300,000) = \$6,000

*Topic: Ratio and Financial Statement Analysis*

- 2.6.35) Construct the DuPont system of analysis using the following financial data for Key Wahl Industries and determine which areas of the firm need further analysis.

**Key Financial Data**

Key Wahl Industries:	
Sales	\$4,500,000
Net profits after taxes	337,500
Total assets	6,750,000
Total liabilities	3,375,000
Industry Averages:	
Total asset turnover	0.71
Debt ratio	33.00%
Financial leverage multiplier	1.50
Return on total assets	6.75%
Return on equity	10.00%
Net profit margin	9.50%

Answer: Ratios for Key Wahl Industries

$$\text{Total asset turnover} = \frac{4,500,000}{6,750,000} = 0.67$$

$$\text{Debt ratio} = \frac{3,375,000}{6,750,000} = 50\%$$

$$\text{Financial leverage multiplier} = \frac{1}{1 - 0.5} = 2$$

$$\text{ROA} = \frac{337,500}{6,750,000} = 5\%$$

$$\text{ROE} = \text{ROA} \times \text{Financial leverage multiplier} = 10\%$$

$$\text{Net profit margin} = \frac{337,500}{4,500,000} = 7.5\%$$

DuPont System of Analysis: Key Wahl Industries performs equally to industry averages according to the return on equity. However, when dissecting the financial data further into the three key components of the DuPont system (a profit-on-sale, efficiency-of-asset use, and a use-of-leverage component), some areas of improvement may be highlighted. Key Wahl Industries has a lower net profit margin and return on total assets than industry averages. Nevertheless, the firm makes up for the low profit margin through excessive use of leverage (a 50 percent debt ratio versus 33 percent for the industry). Financial risk could be reduced resulting in the same return on equity by increasing the net profit margin and reducing debt.

*Topic: Dupont System Analysis*

- 2.6.36) Given the following balance sheet, income statement, historical ratios and industry averages, calculate the Pulp, Paper, and Paperboard, Inc. financial ratios for the most recent year. Analyze its overall financial situation for the most recent year. Analyze its overall financial situation from both a cross-sectional and time-series viewpoint. Break your analysis into an evaluation of the firm's liquidity, activity, debt, and profitability.

**Income Statement**

**Pulp, Paper and Paperboard, Inc.**

**For the Year Ended December 31, 2005**

Sales Revenue	\$2,080,976
Less: Cost of Goods Sold	<u>1,701,000</u>
Gross Profits	\$379,976
Less: Operating Expenses	<u>273,846</u>
Operating Profits	\$106,130
Less: Interest Expense	<u>19,296</u>
Net Profits Before Taxes	\$86,834
Less: Taxes (40%)	<u>34,810</u>
Net Profits After Taxes	<u>\$52,024</u>



**Balance Sheet**  
**Pulp, Paper and Paperboard, Inc.**  
**December 31, 2005**

<b>Assets</b>	
Cash	\$ 95,000
Accounts receivable	237,000
Inventories	<u>243,000</u>
Total current assets	\$ 575,000
Gross fixed assets	500,000
Less: Accumulated depreciation	<u>75,000</u>
Net fixed assets	<u>\$ 425,000</u>
Total assets	<u>\$1,000,000</u>
<b>Liabilities and stockholders' equity</b>	
Current liabilities	
Accounts payable	\$ 89,000
Notes payable	169,000
Accruals	<u>87,000</u>
Total current liabilities	\$ 345,000
Long-term debt	<u>188,000</u>
Total liabilities	\$ 533,000
Stockholders' equity	
Common stock	255,000
Retained earnings	<u>212,000</u>
Total stockholders' equity	<u>\$ 467,000</u>
Total liabilities and stockholders' equity	<u>\$1,000,000</u>

**Historical and Industry Average Ratios**  
**Pulp, Paper and Paperboard, Inc.**

<b>Ratio</b>				<b>Industry</b>
	<b>2003</b>	<b>2004</b>	<b>2005</b>	<b>2005</b>
Current Ratio	1.6	1.7	-	1.6
Quick Ratio	0.9	1.0	-	0.9
Inventory Turnover	8.1	9.3	-	8.4
Average Collection Period	33 days	37 days	-	39 days
Total Asset Turnover	2.3	2.2	-	2.2
Debt Ratio	60%	56%	-	58%
Times Interest Earned	2.5	3.5	-	2.3
Gross Profit Margin	21%	19.7%	-	20.4%
Operating Profit Margin	4.7%	4.8%	-	4.7%
Net Profit Margin	1.8%	1.6%	-	1.4%
Return on total assets	4.1%	3.5%	-	3.08%
Return on Equity	10.3%	7.9%	-	7.3%

Answer:

**Historical and Industry Average Ratios  
Pulp, Paper and Paperboard, Inc.**

Ratio	Industry			
	2003	2004	2005	2005
Current Ratio	1.6	1.7	1.67	1.6
Quick Ratio	0.9	1.0	0.96	0.9
Inventory Turnover	8.1	9.3	7.0	8.4
Average Collection Period	33 days	37 days	42 days	39 days
Total Asset Turnover	2.3	2.2	2.1	2.2
Debt Ratio	60%	56%	53%	58%
Times Interest Earned	2.5	3.5	5.5%	2.3
Gross Profit Margin	21%	19.7%	18.3%	20.4%
Operating Profit Margin	4.7%	4.8%	5.1%	4.7%
Net Profit Margin	1.8%	1.6%	2.5%	1.4%
Return on total assets	4.1%	3.5%	5.2%	3.08%
Return on Equity	0.3%	7.9%	11.1%	7.3%

**LIQUIDITY:** The liquidity of 3P is on target with the industry standard in 2005 and shows no trend since 2000.

**ACTIVITY:** Inventory and accounts receivable management has deteriorated since 2004 and is inferior when compared to the industry standard. The low inventory turnover may be caused by overstocking and/or obsolete inventories. The high average collection period may have resulted from poor collections procedures. Further investigation is necessary to determine the cause of the variances.

**DEBT:** 3P has less debt than the industry average. The trend since 2003 has been toward reducing the debt ratio. The firm, therefore, is subject to less financial risk than the average firm in the industry.

**PROFITABILITY:** Although the gross profit margin is inferior to the industry average, the operating and net profit margin far exceed the standards, boosting return on total assets and return on equity. The trend in the gross profit margin is unfavorable and may either be caused by a slide in product prices or an escalation in cost of sales. The cause of the poor gross profit margin should be investigated.

Overall, the firm needs to focus attention on inventory and accounts receivable management and the cause of the poor gross profit margin. In general, the firm is in good financial condition.

*Topic: Complete Ratio Analysis*

2.6.37) Complete the balance sheet for General Aviation, Inc. based on the following financial data.

**Balance Sheet**  
**General Aviation, Inc.**  
**December 31, 2005**

<b>Assets</b>	
Cash	\$ 8,005
Marketable securities	—
Accounts receivable	—
Inventories	—
Total current assets	—
Gross fixed assets	—
Less: Accumulated depreciation	\$50,000
Net fixed assets	—
Total assets	—
<b>Liabilities and Stockholders' Equity</b>	
Accounts payable	\$28,800
Notes payable	—
Accruals	\$18,800
Total current liabilities	—
Long-term debts	—
Total liabilities	—
Stockholders' equity	
Preferred stock	2,451
Common stock at par	30,000
Paid-in capital in excess of par	6,400
Retained earnings	90,800
Total stockholders' equity	—
Total liabilities and stockholders' equity	—

Key Financial Data (2005)

1. Sales totaled \$720,000.
2. The gross profit margin was 38.7 percent.
3. Inventory turned 6 times.
4. There are 360 days in a year.
5. The average collection period was 31 days.
6. The current ratio was 2.35.
7. The total asset turnover was 2.81.
8. The debt ratio was 49.4 percent.
9. Total current assets equal \$159,565.

Answer:

**Balance Sheet**  
**General Aviation, Inc.**  
**December 31, 2005**

<b>Assets</b>	
Cash	\$ 8,005
Marketable securities	16,000
Accounts receivable	62,000
Inventories	<u>73,560</u>
Total current assets	\$159,565
Gross fixed assets	146,663
Less: Accumulated depreciation	<u>\$50,000</u>
Net fixed assets	<u>\$ 96,663</u>
Total assets	<u>\$256,228</u>
<b>Liabilities and Stockholders' Equity</b>	
Current liabilities	
Accounts payable	\$28,800
Notes payable	20,300
Accruals	<u>\$18,800</u>
Total current liabilities	\$67,900
Long-term debts	<u>58,677</u>
Total liabilities	\$126,577
Stockholders' equity	
Preferred stock	2,451
Common stock at par	30,000
Paid-in capital in excess of par	6,400
Retained earnings	<u>90,800</u>
Total stockholders' equity	\$129,651
Total liabilities and stockholders' equity	<u>\$256,228</u>

Topic: Ratio and Financial Statement Analysis